

MASTERTOP[®] 100

Pre-Mixed Quartz Dry-Shake Surface Hardener for Industrial, Commercial or Residential Concrete Floors

Description of Product

MASTERTOP[®] 100 is a pre-mixed, dry-shake surface hardener, which contains hydraulic binder and specially selected graded mineral aggregates.

MASTERTOP[®] 100 is designed to ensure improved durability in applications where the floor is subjected to light and medium traffic and where a non-dusting surface is required. It will improve and enhance the in-use performance of all concrete floors.

Fields of Application

MASTERTOP[®] 100 has been formulated to provide the simplest, most cost-effective way of upgrading new concrete surfaces in a wide range of light and medium duty applications.

MASTERTOP[®] 100 is available in a specially formulated light reflective grade (formerly known as Colorcron Light Reflective) for use in situations such as workshops, aircraft hangars etc. where high levels of background lighting are required/desired.

MASTERTOP[®] 100 is used extensively in the following areas:

- Basements and cellars.
- Mechanical workshops.
- Garages.
- Storage rooms.
- Corridors, subways.
- Educational facilities.
- Parking areas.
- Loading platforms.
- Warehouses.
- Factories.
- Shopping Centres.
- Showrooms and Sales areas.

Features and Benefits

MASTERTOP[®] 100 is applied monolithically to form an integral part of the floor surface. It cannot delaminate or peel.

- Ease of application.
- Economical.
- Provides high density surfaces.
- Improved durability by increased abrasion and impact resistance.
- Up to twice the service life of a plain concrete floor.
- Available in a range of colours including a light reflective finish.
- Control and expansion joint edges can be afforded better protection by the addition of extra material along their length.
- Pre-mixed, offering factory controlled quality assurance.
- Dense surface with low porosity.
- Easy to clean (in comparison to normal concrete).
- Attractive finish.
- Available in a range of standard colours. Natural, Light Grey, Tile Red, Nile Green, Ochre and Light Reflective White.

Technical Data/Typical Properties

Compressive Strength after 28 days	75-80 N/mm ² (MPa)
E-Modulus after 28 days	29.500 N/mm ² (MPa)
Abrasion Resistance Böhme	6 to 8 g/cm ³
Impact Resistance (LA) after 2000 cycles	45-50% loss of weight
Chemical Resistance	Medium to low
Curing	Yes

Application Procedure

Application

MASTERTOP® 100 is essentially, a simple product in use, i.e. the dry powder blend being spread mechanically or by hand onto freshly laid concrete floors followed by working the products into the surface by a power float. However, it is recommended that specialist concrete flooring contractors be employed to ensure the design finish.

Detailed application procedures can be provided by BASF on request, however, the following watchpoints with respect to the quality of the base concrete slab should be noted:-

- Minimum 75mm slump.
- Well designed mix with minimum bleed water.
- Design strength at least 30N/mm².
- No more than 3% entrained air.
- Do not use chloride containing admixtures.
- Do not use salt water or salt contaminated aggregate
- Take particular care at ambient temperatures greater than 25°C.

In addition the following should be noted with respect to the application of MASTERTOP® 100 .

- The amount of MASTERTOP® 100 required depends upon the expected traffic and is to be specified by the Engineer
Light to Moderate Duty 3-5 kg/m²
Moderate to Heavy Duty 5-9 kg/m²
- For coloured floors 7-9 kg/m² is recommended
- For light reflective floors a minimum of 9.0 kg/m² is recommended
- MASTERTOP® 100 is normally applied in two layers, two thirds and then one third of the required application rate. The first application is thoroughly worked into the surface before the second is commenced.
- Pay particular attention to details, around columns, doorways, expansion joints, etc. For additional protection apply heavier application rates along joint edges.
- Do not sprinkle additional water onto the surface of the floor during finishing.
- Do not hard burnish coloured floors.
- Saw cut crack control joints as soon as possible
- MASTERTOP® 100 floors should be cured using MASTERKURE® 181 at 5m²/L as soon as the surface is not marred by the application.
- Do not water cure MASTERTOP® 100
- Protect the floor from other trades during the construction phase.
- In areas of heavy oil contamination MASTERTOP® 100 will be more easily maintained and cleaned if sealed

with MASTERKURE® 181 on a planned ongoing basis dependent on service conditions.

Coverage

The following coverage rates have been calculated using theoretical and practical data and include an allowance for wastage.

Product	Consumption
MASTERTOP® 100	
For light to medium traffic	3 to 5 kg/m ²
For medium traffic	5 to 9 kg/m ²
For coloured floors	7 to 9 kg/m ²

Cleaning

All tools and equipment should be cleaned with water. Cured material can only be removed by mechanical means.

Packaging

MASTERTOP® 100 is packaged in 25 kg moisture-resistant bags.

Storage

Store in cool dry conditions

Shelf Life

Kept frost-free and dry. MASTERTOP® 100 can be stored for 18 months in the tightly closed original packages.

Watchpoints

- MASTERTOP® 100 applications should preferably not take place in direct sunlight or in high winds.
- As with any concrete slab, curing is of paramount importance and should take place upon completion of finishing.
- Not for use in areas exposed to acids and their salts or to materials known to rapidly attack or deteriorate.
- Do not over-trowel.
- Do not add water.

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The Chemical Company

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Health and Safety

*For full information on Health and Safety matters regarding this product the relevant Health and Safety Data Sheet should be consulted.

The following general comments apply to all products.

As with all chemical products, care should be taken during use and storage to avoid contact with eyes, mouth, skin and foodstuffs, (which may also be tainted with vapour until the product is fully cured and dried). Treat splashes to eyes and skin immediately. If accidentally ingested, seek medical attention. Keep away from children and animals. Reseal containers after use.

Solvent Based Products

Use in well ventilated areas; avoid inhaling. Suitable respiratory equipment may be needed, eg when spraying. Can cause skin, eye irritation. Wear protective eye shields and gloves during use. Do not smoke or allow sparks or naked lights when stored or in use.

Powder Products

Should be handled to minimise dust formation; use light mask if excessive dust unavoidable. Cement powders when wet or moistened can cause burns to skin and eyes which should be protected during use.

Resin Products

Can cause irritation, dermatitis or allergic reaction. Use protective equipment particularly for skin and eyes. Use only in well ventilated areas.

Spillage

Chemical products can cause damage; clean spillage immediately.

Disclaimer:

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